REMARKS

Claims 1-4, 6-9, and 11-42 are pending in the application. Claims 5 and 10 have been canceled without prejudice to remove redundancy with the amended claims. Claims 7, 8, 12, 13, 14, 20, 21, 26, 28, 30, 32, and 34 stand withdrawn as being drawn to a non-elected species. Claims 36-41 stand withdrawn as being drawn to a non-elected invention. Claims 1, 6, 11, 15, 29, 31, 35, and 42 have been amended. Support for the claim amendments can be found throughout the application, including the claims as originally filed. Importantly, no new matter has been added to the claims. Cancellation of and the amendment to the claims should not be construed to be an acquiescence to any of the rejections. The cancellation of and the amendments to the claims are being made solely to expedite the prosecution of the above-identified application. Applicants reserve the right to further prosecute the same or similar claims in subsequent patent applications claiming the benefit of priority to the instant application. 35 USC § 120.

The specification has been amended to insert the required SEQ ID NO identifiers associated with each listed sequence, as well as to distinguish the amine "NH_2" notation attached to several 3-mers by including a "-" between the peptide and amine (e.g. page 19, line 1 "RGD-NH_2"). The examiner expressed some concern that this type of disclosure reflected peptides that met the sequence rules under 37 C.F.R. § 1.821(a) (i.e. amino acid sequences of 4 or more residues), when in fact the peptides in question only contain 3 residues. Applicants respectfully assert, therefore, that clarification of said peptide disclosures of this type now obviates the Examiner's concern as laid out on page 5 of the Office Action dated November 29, 2005.

Along with the present Amendment and Response, Applicants include an initial paper copy of the "Sequence Listing," and request its entry into the application. Also included is an initial computer readable form copy of the Sequence Listing. A statement from the preparers of the paper and computer readable copy in accordance with § 1.821(f) and § 1.821(g), stating that the paper copy of the Sequence Listing and the computer readable copy of the Sequence Listing are the same, that the sequences contained in this sequence listing are supported in the application as filed, and that neither the paper copy nor the computer readable form of the Sequence Listing contains new matter is enclosed.

Sequence Compliance

Applicants have been advised that the application is not in compliance with 37 C.F.R. § § 1.821-1.825 because the application contains sequence disclosures but does not contain a paper copy as required by 37 C.F.R. 1.821(c) or a computer readable form as required by 37 C.F.R. 1.825(d). A copy of the Notice to Comply is included with this Amendment and Response.

Applicants presently submit a computer readable form copy of the Sequence Listing, a paper copy of the Sequence Listing, and a statement that the content of the paper and computer readable copies are the same and include no new matter as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

Accordingly, Applicants submit that the application is in compliance with Sequence Listing requirements.

Objection to the Specification

The specification stands objected to based on the Examiner's contention that the specification recites sequences without an accompanying SEQ ID NO, e.g. pages 4, 19, 59-61, 68, 87, and in Table 1. Applicants respectfully traverse this objection.

Applicants have amended the specification to include the proper SEQ ID NO identifiers and submit that the specification no longer contains the above informality.

Accordingly, Applicants request the withdrawal of the objection to the specification.

Election/Restrictions

Applicants elect with traverse the invention of Group I, claims 1-35 and 42, as set forth in the Elections/Restriction Requirement made in the Examiner's office action dated November 29, 2005, and which was provisionally made with traverse by Applicants' representative in a phone call on September 15, 2005. Applicants submit that the Restriction Requirement is improper because, in accordance with the requirements of MPEP § 808.02, it would not be an undue burden on Examiner's part to search the method claims of Group II, which depend upon the compound claims of Group I, because a search of the compound claims would necessarily be a search of the method claims. Applicants have accordingly not canceled the claims of Group II

and feel that if the Restriction Requirement is maintained, they will nonetheless be rejoined with the compound claims of Group I in accordance with MPEP § 821.04 ("Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined...").

Applicants also hereby confirm the election of species BEP1 on page 63 of the specification which was provisionally made during a phone conversation with Applicants' representative on September 15, 2005. Applicants have not canceled claims drawn to a non-elected species because Applicants feel that certain claims (e.g. 21 and 30) will necessarily be searched when the non-withdrawn claims of Group I are further searched because both sets of claims comprise at least one steroid ligand.

Response to Rejections under 35 U.S.C. § 112¶2

Claims 9-14, 35, and 42 stand rejected under 35 U.S.C. § 112¶2 based on the Examiner's contention that they fail to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner contends that claims 9 and 12 lack antecedent basis for the term "covalently attached through a tether," and that claims 25-30 lack antecedent basis for the terms "tethered steroid" and "tethered peptide." Applicants respectfully traverse this rejection.

Applicants submit that the terms contained in claims 9-14, 35, and 42 do not lack antecedent basis in light of amendments to independent claims 1, 15, and 31. Claims 1, 15, and 31 have been amended to clarify that the therapeutic agent is covalently attached to the platinum metal center either directly or through a tether. Support for this amendment can be found on page 26 of the specification within the definition of "covalently attached." Importantly, no new matter has been added.

Applicants thank Examiner for suggesting that Applicants use "linker" instead of "tether" in the claims based on the contention that linker is more commonly used in the art. Applicants, however, have decided not to make this change because the specification as filed contains an express definition for the term "linker" which may create confusion if used in place of tether. See page 30 of the specification, lines 11-13. Applicants respectfully request, in lieu of the Examiner's helpful suggestion, that they be allowed to use the term "tether" in accordance with

MPEP § 2173.01 Claim Terminology ("[a] fundamental principle contained in 35 U.S.C. 112, second paragraph is that applicants are their lexicographers.").

Applicants submit that claims 9-14, 35, and 42 particularly point out and distinctly claim the subject matter which Applicants regard as their invention. Accordingly, Applicants request the withdrawal of the rejection of these claims under 35 U.S.C. § 112¶2.

Response to Rejections under 35 U.S.C. § 102(b)

Claims 1-4, 15, 18, 22-24, 31, 33, 35, and 42 stand rejected under 35 U.S.C. § 102(b) based on the Examiner's contention that they are anticipated by Talroy et al. (U.S. Patent No. 4,873,226). Applicants respectfully traverse this rejection.

Applicants submit that Talroy et al. does not anticipate claims 1-4, 15, 18, 22-24, 31, 33, 35, and 42 because Talroy et al. does not disclose a platinum compound comprising two cis labile ligands, at least one steroid on the platinum metal center, and a +4 oxidation state for platinum.

In order to anticipate a claim, a single source must contain all of the elements of the claim. *See Atlas Powder Co. v. E.I. du Pont De Nemours & Co.*, 750 F.2d 1569 (Fed. Cir. 1984).

Talroy et al. discloses a compound of formula cis$[Pt(NH_3)_2P_xCl_y]Cl_z$ wherein x is 1 or 2, and y and z are 1 when x is 1 and 0 and 2 when x is 2. P is an antiviral compound. See column 2, lines 30-42. In particular, the Examiner cites cis-$[Pt(NH_3)(cyclaradine)_2]Cl_2$ in column 6, line 16. This compound, and compounds covered within the above formula, do not comprise two cis labile ligands as required by independent claims 1, 15, and 31, and claims dependent thereon, they do not comprise a steroid covalently attached to the platinum metal center as required by independent claims 1, 15, and 31 and claims dependent thereon, and they do not contain a platinum metal center in a +4 oxidation state as required by claim 31 and claims dependent thereon.

Complexes do not contain two cis labile ligands

The compounds disclosed in Talroy et al., i.e. cis$[Pt(NH_3)_2P_xCl_y]Cl_z$, contain at most 1 labile ligand (which by definition can not be cis with itself) when y is 1. In these complexes the chlorine atoms are the labile ligands. This can be seen by the way the complexes are prepared in column 6, lines 3-17. The starting material is cisplatin, cis-$[Pt(NH_3)_2Cl_2]$, which contains two cis

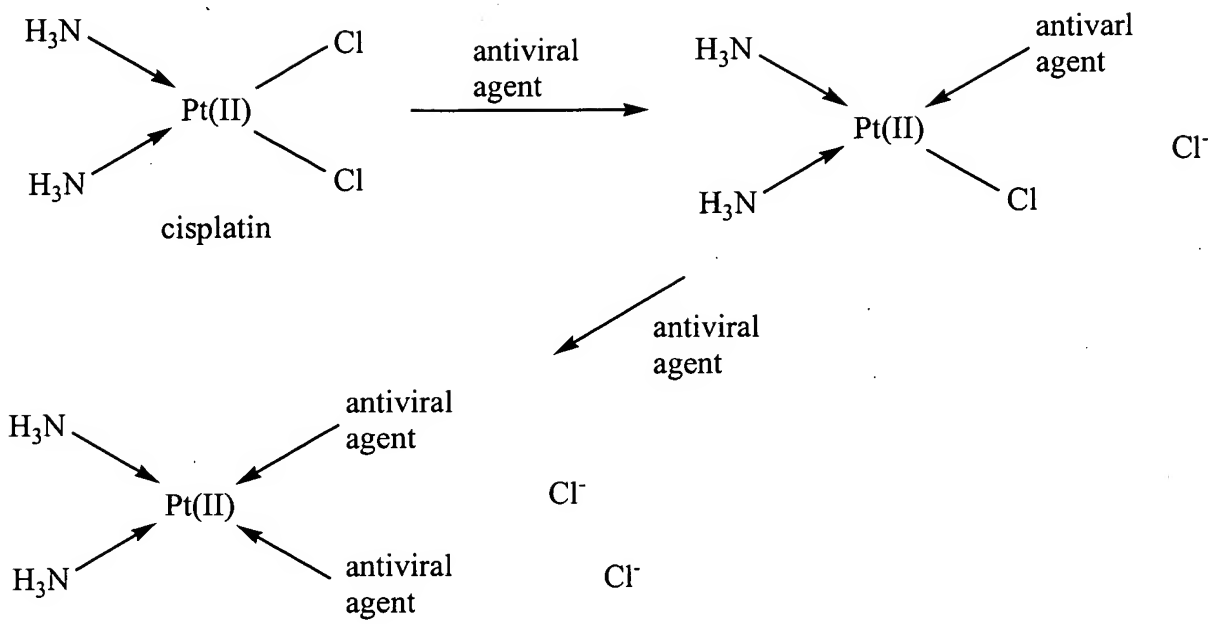
and labile chlorine atoms covalently attached to the platinum metal center. As antiviral agent is added, e.g. cyclaridine, two moles of labile chlorine atoms are displaced by two moles of antiviral agent. The two chlorine atoms are no longer attached to the platinum metal center. When they get displaced, they take the electrons of the bond with them and become counter ions to the positively charged platinum metal center. The compounds disclosed in Talroy et al. are salts with the chlorine atoms existing in space attracted to the positively charged platinum complex through electrostatic forces. In other words, in the complexes of Talroy et al., the cis labile ligands have already been removed, and what's left are 4 non-labile ligands (2 NH_3 and 2 antiviral agents).

Complexes do not contain at least one steroid covalently attached to a platinum metal center

The complexes disclosed in Talroy et al. comprise antiviral agents such as cyclaradine as the therapeutic agent. Steroids are a class of compounds characterized by 4 fused rings such as estrogen or cholesterol and generally fall into 1 of 5 categories: anabolic steroids (taken by athletes to increase performance); corticosteroids (affects metabolism and electrolyte excretion); sex hormones (androgens, estrogens, and progestagens); prohormones (precursors to actual steroid hormones); and phytosterols (steroids naturally occurring in plants). The antiviral compounds disclosed in Talroy et al. are not steroids. A portion of a scientific article found during a search of PubMed Central shows the structure of cyclaradine and is included in this response. The Examiner can see that it does not contain the 4 fused rings of a steroid.

Complexes do not contain platinum in a +4 oxidation state

The platinum complexes disclosed in Talroy et al. are in a +2 oxidation state. This can be seen from the synthetic procedure used to prepare them. The starting materials are cisplatin and antiviral agent. In the depiction below, the arrows from NH_3 and the antiviral agents denote that the two electrons that make up the bond with the platinum metal center come from NH_3 or the antiviral agent. They do not affect the oxidation state of the platinum metal center. The +2 oxidation state results from the 2 chlorine atoms. The +2 oxidation state remains throughout the reaction because as each Cl^- leaves it takes the platinum electron with it.



The complexes disclosed in Talroy et al. have a +2 oxidation state just like starting material cisplatin.

Because Talroy et al. does not disclose platinum compounds with two cis labile ligands, a covalently attached steroid, and a platinum metal center in a +4 oxidation state, Applicants submit that Talroy et al. does not disclose each element of the present claims. Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 1-4, 15, 18, 22-24, 31, 33, 35, and 42 under 35 U.S.C. § 102(b) over Talroy et al.

Response to Rejections under 35 U.S.C. § 102(e)

Claims 1-4, 15, 18, 22-24, 31, 33, 35, and 42 stand rejected under 35 U.S.C. § 102(e) based on the Examiner's contention that they are anticipated by Lippard et al. (U.S. Patent No. 6,806,289). Applicants respectfully traverse this rejection.

Applicants submit that Lippard et al. does not anticipate claims 1-4, 15, 18, 22-24, 31, 33, 35, and 42 because Lippard et al. does not disclose platinum complexes with a covalently attached steroid as required by the claims as amended.

In order to anticipate a claim, a single source must contain all of the elements of the claim. *See Atlas Powder Co. v. E.I. du Pont De Nemours & Co.*, 750 F.2d 1569 (Fed. Cir. 1984).

Lippard et al. discloses in claim 12 the compound ammine(2-amino-3-picoline)dichlorodiacetoplatinum(IV), which comprises two aceto groups covalently attached to

the platinum metal center. Dosch et al. (U.S. Patent No. 6,469,066) was cited by the Examiner to show that acetic acid, the resulting product when an aceto group is released from the complex, is a therapeutic agent used to treat burns. However, Lippard et al. does not disclose or teach using a steroid as a covalently attached ligand. Table 1 in Lippard et al. lists the ligands that were used to prepare the platinum metal complexes disclosed in Lippard et al. No where in Table 1 is a steroid listed. Lippard et al. primarily relates to methods of preparing a large variety of platinum complexes via combinatorial library methods for the treatment of cancer. Lippard et al. does not teach a platinum-steroid coordination complex wherein, upon reduction at the platinum metal center, a steroid is released to increase the therapeutic effectiveness of the coordination complex formed upon release.

The present invention discloses such a system. The platinum metal compounds of the present invention comprise two non-labile ligands, two-labile ligands, and at least one steroid covalently attached to the platinum metal center. Upon release of the steroid, it is expected to bind to the steroid receptor cells which then become sensitized by a factor of two towards the platinum coordination complex. This type of system where a released steroid increases the effectiveness of the remaining platinum coordination complex is not disclosed anywhere in Lippard et al.

Because Lippard et al. does not disclose each and every limitation of the present claims, Applicant respectfully requests the withdrawal of the 35 U.S.C. § 102(e) rejection of claims 1-4, 15, 18, 22-24, 31, 33, 35, and 42 over Lippard et al.

Response to Rejection Under the Judicially Created Doctrine of Obviousness-Type Double Patenting

Claims 1-4, 15, 18, 22-24, 31, 33, 35, and 42 stand rejected based on the Examiner's contention that they are claiming common subject matter to claims 1 and 9-12 of U.S. Patent No. 6,806,289 to Lippard et al. Applicants respectfully traverse this rejection.

Claims 1-4, 15, 18, 22-24, 31, 33, 35, and 42, as amended, are drawn to compounds comprising a platinum metal center, two labile ligands, two non-labile ligands, and a covalently attached steroid. Claims 1 and 9-12 of Lippard et al. do not comprise a covalently attached steroid. Applicants submit that the species-genus relationship between the compound of claim 12 of Lippard et al. and the instantly claimed platinum compounds does not exist. Accordingly,

the need to file a terminal disclaimer has been obviated and Applicants request the withdrawal of the Obvious-Type Double Patenting rejection of claims 1-4, 15, 18, 22-24, 31, 33, 35, and 42 over claims 1 and 9-12 of Lippard et al.

Allowable Subject Matter

Applicants thank Examiner Kosar for his indication that species BEP1-BEP5 and BEPn, where the general structure of the compounds is estradiol-O-(anything)-O-Pt (structure of Scheme 1, page 23), are free of the prior art. Accordingly, Applicants have amended the claims to where at least one covalently attached group to the platinum metal center is a steroid. Applicants submit that composition and method claims so amended are also free of the prior art and submit that they are in condition for allowance.

Fees

Applicants believe no fee is due in connection with the filing of this paper. Nevertheless, the Director is hereby authorized to charge any required fee to our Deposit Account, **06-1448**.

Conclusion

In view of the above amendments and remarks, Applicants believe that the pending claims are in condition for allowance. If a telephone conversation with Applicant's Agent would expedite prosecution of the application, the Examiner is urged to contact the undersigned.

Respectfully submitted,
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